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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,381	12/10/2001	Leif Helgesson	31039/214235	4935

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EXAMINER

HUG, ERIC J

ART UNIT PAPER NUMBER

1731

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-3

Office Action Summary	Application No.	Applicant(s)	
	10/016,381	HELGESSON ET AL.	
	Examiner	Art Unit	
	Eric Hug	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-18, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilker (US 6,073,825) in view of Smook (Handbook for Pulp and Paper Technologists). Hilker discloses a directional tail threading apparatus for delivering a web tail of flexible material from a first section in a web processing machine to a threading nip located downstream. The device is configured to direct a tail laterally from the initial path of movement if desired. A tray is positioned longitudinally along the path of the moving web. The tray has one or more creases for changing the direction of the tail relative to its initial path. Sources of air are provided for directing the tail downstream along the surface of the tray. These sources are illustrated in Figures 8 and 9. Air is provided by tubes and air nozzles which extend the width of the tray. Air is drawn through the tubes and directed from the nozzles parallel to the direction of the running tail. The air nozzles can be a single slit that extends across the width or a series of jet openings that extend across the width.

Although Hilker does not provide any specific examples of utilizing the tray in a press section or a drying section, the tray of Hilker is designed to direct any paper tail irrespective of the weight or moisture content (column 7, lines 15-17). The tray is also designed for directing

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tails between any two points in a paper making machine as known in the art (column 1, lines 43-52). Therefore at the time of the invention, it would have been obvious to one skilled in the art that the tail threading tray of Hilker can be used in any section of a paper machine, or between any two sections of a paper machine including a press section or a drying section.

With respect to the claims:

Claims 1, 3, 4: Hilker provides a threading device comprising a tray having an upper surface and comprising a plurality of tubes for discharging air along the upper surface of the tray. The tray is used to direct a web between two transfer devices, the second being a threading nip. It is obvious that the device can be used in a press section or between a press section and drying section to transfer a wet web, as described above.

Claim 14: See above for claim 1, plus the tubes define a portion of the upper surface of the tray.

Claim 22: The tail threader accomplishes the method of positioning a pivotable threading device between two devices (by means of the tray creases), directing the tail from the first device to the threader, directing air along the surface of the threader through a plurality of outlets of a plurality of tubes which make up a portion of the surface, and directing the tail into the second device (the downstream threading nip).

Claims 5, 6, 15, 16: The claimed web drynesses are typical ranges for a wet web as it enters a drying section, known to one skilled in the art (see section 16.9 of Smook).

Claims 7, 17, 23: Tail cutters are provided upstream of the tray and are located near an outside edge of an upstream roll (see column 5, lines 32-41).

Claims 8, 11, 18, 25: The tail threader can be pivoted between two devices in any direction transverse and laterally offset from the path of the web (by means of the tray creases).

Claims 9, 10, 12, 20: The tubes extend the width of the tray and each outlet of the plurality of tubes extend the width. The outlet can comprise jet openings (82) positioned along the tube width (column 7, lines 7-9).

Claims 13, 21: Figure 9 shows that the tubes can have a rectangular shape.

Claim 24: The tray has a lead-in planar surface portion (column 6, line 18-20) for directing the tail to the main portion of the threading apparatus.

2. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helgesson et al (US 6,131,784) in view of Smook (Handbook for Pulp and Paper Technologists). Helgesson disclose a threading device for drawing a paper web through an open draw in a paper machine between two machine devices. In particular, Helgesson discloses using the device for threading a fiber web between a press section and a drying section, although Helgesson also suggests that the device can be used for transferring the web through an open draw between a forming wire and a press section.

The device comprises a transfer member (21), which is shown in detail in Figures 6-8. The transfer member is arranged between the fiber web and a web stabilizer 11 (located adjacent the first nip of the drying section). The transfer member 21 comprises several elongate air supply tubes 68 arranged substantially parallel and close together. In the embodiment shown in FIGS. 7 and 8 the air supply tubes have rectangular cross section. Each air supply tube is welded at one end to an elongate air distributing pipe 71 for compressed air. The transfer member 21 is

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provided with holes or nozzles across its width, to supply the compressed air in the direction of movement of the fiber web. The holes 74 are arranged in the side of each air supply tube facing downstream. The air supply tubes are displaced in relation to each other so that together they form a stair-like configuration with a certain length and curved shape.

The transfer member is equivalent to that claimed in the present invention, except that the air is directed along the bottom surface of the transfer member, and the web adheres to the underside of the transfer member via suction. However, the claims are unpatentable because the transfer member of Helgesson comprises all the elements of the claimed web transfer apparatus and is used for the same purpose, only rearranged to have the air blowing on the upper surface to carry the web along. The claims are also unpatentable in view of *In re Japikse*, 86 USPQ 70 (CCPA 1950), the rearrangement of parts without changing their functions is within the skill in the routineer in the art.

With respect to the claims:

Claims 1, 3, 4: Helgesson provides a threading device comprising a plurality of tubes for discharging air along the surface of the tubes. The device is used to direct a web between two transfer devices, the second being a threading nip. The device can be used in a press section or between a press section and drying section to transfer a wet web, as described above.

Claim 14: See above for claim 1, plus the tubes define the web contacting surface of the threading device.

Claim 22: The threader accomplishes the method of positioning a pivotable threading device between two devices (by means of the curving transfer member), directing a web from the first device to the threader, directing air along the surface of the threader through a plurality of

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outlets of a plurality of tubes which make up the surface, and directing the web into the second device (the downstream threading nip).

Claims 5, 6, 15, 16: The claimed web drynesses are typical ranges for a wet web as it enters a drying section, known to one skilled in the art (see section 16.9 of Smook).

Claims 7, 17, 23: Tail cutters are provided upstream of the transfer member adjacent the first transfer device.

Claims 8, 11, 18, 25: The web threader can be pivoted between two devices transverse to the path of the web (by means of the curving transfer member).

Claims 9, 10, 12, 20: The tubes extend the width of the tray and each outlet of the plurality of tubes extend the width. The outlet comprises holes or nozzles along the tube width.

Claims 13, 21: Figure 8 shows that the tubes have a rectangular shape.

Claims 2, 19: Helgesson teaches that transferring a leader between a forming wire and to a suction roll involves gripping the leader by a suction roll so that the web is lifted over to the press section. It is known in the art that a typical press section comprises a guide roll and suction roll that form a nip so that the web is carried to the press (see section 16-9 of Smook, particularly the press arrangements).

Claim 24: The transfer member has a lead-in guide member 66 forming a sliding surface for the web.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


The following references all disclose means for supporting and/or transferring a running web between devices utilizing an air flow along a supporting surface:

Kiuru (US 4,501,643)
Peiffer (US 4,904,344)
Baker (US 4,969,588)
Page et al (US 5,891,309)
Overly (US 3,587,177)
Hauser et al (US 4,881,327)
Stenz et al (US 5,970,627)
Svanqvist et al (US 5,738,760).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 703 308-1980. The examiner can normally be reached on Monday through Friday, 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0651.


jeh
April 14, 2003


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